## MULTIPLE CONTRAST ECHO-PLANAR IMAGING FOR CONTRAST-ENHANCED IMAGING

## Abstract of the Disclosure

A dose of a contrast agent (44) is administered 5 to the patient (42). A magnetic resonance is excited by an RF pulse (200) in a region of interest of the patient (42). An echo-planar imaging (EPI) readout waveform is implemented a preselected duration after the excitation to generate T2 or T2\* weighted data. During the preselected another echo planar readout waveform is duration, 10 implemented to generate  $T_1$  or proton density weighted data. The data is reconstructed (56) to generate a  $T_2$  or  ${T_2}^\star$ weighted image and a T<sub>1</sub> weighted image. The T<sub>1</sub> and T<sub>2</sub> or  ${\rm T_2}^{\star}$  weighted images are combined (62) to generate a contrast enhanced image. 15